

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS

1. (Previously presented) An intrinsically safe portable device for configuring the operation of a time of flight ranging system for making level measurements, said time of flight ranging system having a wireless communication receiver, said device comprising:

(a) an enclosure;

(b) an electronic circuit mounted in said enclosure, said electronic circuit including a low voltage power supply and a low power microcontroller for operating at a low voltage level to eliminate the incidence of sparking;

(c) a keypad coupled to said electronic circuit; and

(d) a wireless transmitter responsive to said electronic circuit and operative to transmit control signals to the wireless communication receiver on the time of flight ranging system for controlling parameters of the time of flight ranging system.

2. (Original) The intrinsically safe portable device as claimed in claim 1, wherein said electronic circuit is encased in an epoxy inside of said enclosure, said epoxy providing a barrier against sparking in the electronic circuitry.

3. (Original) The intrinsically safe portable device as claimed in claim 2, wherein said enclosure is formed from general polymers polystyrene having a maximum surface resistivity of $5,000E+3$ Ohms.

4. (Original) The intrinsically safe portable device as claimed in claim 1, wherein said wireless transmitter comprises an infrared transmitter.

5. (Original) The intrinsically safe portable device as claimed in claim 4, wherein said electronic circuit operates at a nominal voltage of 3 volts, and said low voltage power supply comprises a single cell lithium battery.

6. (Previously presented) A time of flight ranging system for measuring the level of material in a container, said time of flight ranging system comprising:

(a) a time of flight ranging device having a wireless communication receiver, said time of flight ranging device having configurable parameters; and

(b) an intrinsically safe portable device, including
(i) an enclosure,
(ii) an electronic circuit mounted in said enclosure, said electronic circuit including a low voltage power supply and a low power microcontroller for operating at a low voltage level to eliminate the incidence of sparking,

(iii) a keypad coupled to said electronic circuit, and

(iv) a wireless transmitter responsive to said electronic circuit and operative to transmit control signals to said wireless communication receiver on said time of flight ranging device for controlling said configurable parameters.

7. (Previously presented) The time of flight ranging system as claimed in claim 6, wherein said electronic circuit is encased in an epoxy inside of said enclosure, said epoxy providing a barrier against sparking in the electronic circuitry.

8. (Previously presented) The time of flight ranging system as claimed in claim 7, wherein said enclosure is formed from general polymers polystyrene having a maximum surface resistivity of 5,000E+03 Ohms.

9. (Previously presented) The time of flight ranging system as claimed in claim 6, wherein said wireless transmitter comprises an infrared transmitter.

10. (Previously presented) The time of flight ranging system as claimed in claim 9, wherein said electronic circuit operates at a nominal voltage of 3 volts, and said low voltage power supply comprises a single cell lithium battery.

11. (Previously presented) The intrinsically safe portable device as claimed in claim 1, wherein said wireless transmitter comprises a radio transmitter.

12. (Previously presented) The time of flight ranging system as claimed in claim 6, wherein said wireless transmitter comprises a radio transmitter.

13. (Previously presented) The intrinsically safe portable device as claimed in claim 1, wherein said intrinsically safe portable device is configured to operate on enclosed electronic process control devices without keypads and control panels.

14. (Previously presented) The time of flight ranging system as claimed in claim 6, wherein said time of flight ranging device is configured to use reflected energy pulses to determine a distance to a surface of a liquid or granular material.

15. (New) An intrinsically safe portable device for configuring the operation of a level measurement system, said level measurement system having a wireless communication receiver, said device comprising:

- (a) an enclosure;
- (b) an electronic circuit mounted in said enclosure, said electronic circuit including a low voltage power supply and a low

power microcontroller for operating at a low voltage level to eliminate the incidence of sparking;

(c) a keypad coupled to said electronic circuit; and

(d) a wireless transmitter responsive to said electronic circuit and operative to transmit control signals to the wireless communication receiver on the level measurement system for controlling parameters of the level measurement system.